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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,927	10/21/2003	Kazuya Tanabe	0505-1250P	3170
2292	7590	11/15/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LEUNG, KA CHUN ALAN	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

11

Office Action Summary	Application No. 10/688,927	Applicant(s) TANABE ET AL.	
	Examiner Ka Chun Leung	Art Unit 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) 3-5 and 8-20 is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1,2,6, and 7 is/are rejected.

7) ☐ Claim(s) ____ is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.	6) <input type="checkbox"/> Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Invention I drawn to a catalyst layer formed on the cooling fins for air cooling a cylinder portion of an engine in the reply filed on 27 OCT 2006 is acknowledged. The traversal is on the ground(s) that the restriction requirement is improper due to the fact that no serious burden is presented to the examiner to consider all the claims in a single application. This is not found persuasive because the related inventions as claimed contain separate classifications and as such would require a separate field of search. Serious burden may be established by the separate classification thereof as cited in Section 808.02 of the MPEP.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 3-5, and 8-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 27 OCT 2006.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over) in MOCHIZUKA et al (US Patent 6,142,113) in view of HOKE et al (US Patent 6,190,627).

9. MOCHIZUKA et al discloses a two-cycle internal combustion engine and cylinder comprising of a centrifugal cooling fan (19) to drive a constant airflow around the cylinder (3). The cooling fan (19) "draws fresh air through a cooling air intake port (21) in the cooling fan cover (20) and generates cooling airflows (23) within the engine case (22). The cooling airflows (23) pass along the inner surface of the engine case (22), around the cylinder (3), and out through an air outlet port (24) in the engine case (22). As the cooling airflows (23) pass through the cooling fins (3b), the internal combustion engine (1) cools," as noted in Column 3, Lines 34-45. However, MOCHIZUKA et al does not disclose the application of a catalyst layer on the cooling fins (3b), cooling fan (19), nor cooling fan cover (20) and the associated engine case (22) for treatment of atmospheric pollutants.

10. HOKE et al discloses a method and device for cleaning the atmosphere and notes in the Background that a "portion of the surface of the engine or cabin cooling

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system is coated with a catalytic or absorption composition," and further that, "pollutants contained within the air such as ozone, hydrocarbons and/or carbon monoxide are then catalytically converted to non-polluting compounds." Please note the definition of "substrate" in Column 3, Lines 30-43.

11. Thus it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided cooling fins, cooling fan, and/or cooling fan cover of MOCHIZUKA et al with a catalyst composition or absorptive material, in light of the teachings of HOKE et al, in order to treat atmospheric pollutants as air passes the fan, fan cover, and/or cooling fins in an air-cooled engine.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is listed in the attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ka Chun Leung whose telephone number is (571) 272-9963. The examiner can normally be reached on 7:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCI
09 NOV 2006


STEPHEN K. CRONIN
SUPERVISORY PATENT EXAMINER